

SYNTHESIS OF A PARTICULATE COPOLYMER CONTAINING
HYDROPHILIC FUNCTIONALITY

ABSTRACT OF THE DISCLOSURE

The present invention relates to a process for synthesizing a particulate
5 copolymer comprising: providing a reaction mixture comprising a reaction medium, a
polymerization stabilizer, a water-insoluble ethylenically unsaturated monomer and an
ethylenically unsaturated monomer containing hydrophilic functionality, said reaction
mixture having a viscosity value of at least 10 cps measured at 40°C, and polymerizing
the water-insoluble ethylenically unsaturated monomer and the ethylenically
10 unsaturated monomer containing hydrophilic functionality. The polymerization reaction
is preferably conducted at a temperature lower than 100°C and activated by a
polymerization catalyst. The resulting particulate copolymer dispersion comprises
copolymer particles showing a weight average diameter size in the range of microns
and absence of defects, such as coagulant or agglomerates. The present invention also
15 provides a dispersion of a particulate copolymer obtained by using the process
described above and a photographic material comprising a support and at least one
layer containing a particulate copolymer obtained by using the process described
above. The photographic material presents improved physical and optical performance.